# La Rabida Children's Hospital

# 2019 – 2021 Community Benefit Report

#### **ABOUT LA RABIDA**

La Rabida Children's Hospital provides specialized, family-centered health care to children with medically complex conditions, disabilities, and chronic illness. Through expertise, compassion, and advocacy we help children and their families reach their fullest potential, regardless of their ability to pay.

Our not-for-profit hospital, licensed for 49 beds, helps transition children from neonatal or pediatric intensive care to home, by providing medical, rehabilitative and developmental care, and by training families to continue treatments and manage the necessary equipment in the home. La Rabida also provides extensive rehabilitation for those recovering from wounds or burns and treatment for exacerbations of chronic conditions.

The hospital's enhanced pediatric patient-centered medical home provides primary care to children with complex medical conditions and their siblings. Children with medical homes elsewhere come to La Rabida for specialty services. La Rabida offers a wide range of specialty services provided to children with sickle cell disease, diabetes, and many others. Children are supported in their emotional and developmental growth, particularly in cases where such growth has been interrupted by accident or disease.

Finally, La Rabida provides forensic and treatment services for children exposed to abuse and neglect, comprehensive assessments for wards of the state, early intervention for children between 0 and 3 years of age. Care coordination services for medically complex children are also provided for those who are covered by a health plan and receive care from providers in Cook County.

As a specialty hospital, La Rabida maintains close relationships with our referring hospitals, which include most of the academic medical centers and major community hospitals in the region. In addition, because many of the families we serve face multiple impediments to healthful living —such as low income, exposure to violence, or food or housing insecurity, we actively assist our families with identifying obstacles and finding solutions, whether it be identifying and enlisting informal supports, obtaining access to benefits, or assembling an array of community-based services to support the family for caring for their child at home.

La Rabida programs have earned the gold seal of approval from the Joint Commission and recognition from the National Committee for Quality Assurance.

### **COMMUNITY ASSESSMENT: GOALS and PROCESSES**

Our families come from specific environments which can either enhance or challenge their abilities to care for their medically complex children. The goal of our community needs assessment is to understand the context in which our families live – particularly as informed by Chicago's mission to improve community health (see Measuring Chicago's Health: Findings from the 2014 Healthy Chicago Surveyi) and the health status data, gathered and made publicly available online by the Chicago Department of Public Healthii.

We participate in one collaborative, the Chicago Southside HealthCare Collaborative (anchored by the University of Chicago) which shares information and mounts collaborative efforts to improve community health. We participate in the Medical Home Network, an organization of safety net providers dedicated to improving health and service outcomes for those served by Medicaid. We provide care coordination on behalf of one Medicaid Managed Care organization, which actively reviews resources, processes and outcomes in order to improve services received by those served by Medicaid. La Rabida also collaborates with the University of Chicago's Urban Health Initiative as a provider at the South Side Pediatric Asthma Center. Along with University of Chicago's Comer Children's hospital, La Rabida, St. Bernard Hospital and Friend and Family Health Center collaborate to expand the network of providers and caregivers trained to identify and treat asthma.

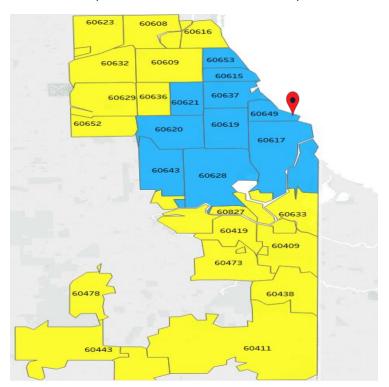
Finally, because we work with families to reduce barriers to health and health services, both for children being cared for by La Rabida programs and for 1200 children being cared for elsewhere across Cook County, we are in active, daily conversations about the immediate and long term needs of and options available to families in the region, and, have been able, by collaborating with other agencies or with health plans, to expand options available to our families.

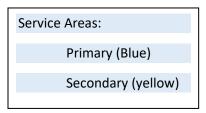
These sources drive enhancements and refinements to our programming to build on assets families already have, better meet challenges they face, and improve or expand the services we provide. For this report, we will look first at the characteristics of the primary geographic areas we serve, and then at the results of a survey of our clinic attendees about the challenges they face. We expect both of these investigations, plus information garnered from the relationships described above, to inform program enhancements to be made over the next 1 to 3 years, with priority given to ways we can boost our own programs and processes to help our subset of the population, families caring for medically complex children, reach their health goals.

Notwithstanding this rich influx of information, both the environment and the health industry are changing rapidly, and the impact of both on our families is complex and at times, overwhelming. While this information, and the information gathered by our clinic survey described below, informs our own contributions to improved community health, we are one puzzle piece of a large, complex and dynamic mosaic of threats and assets which combine to impact the lives of the children we serve.

### **DEFINITION OF THE COMMUNITY SERVED**

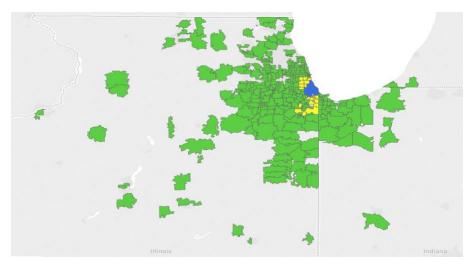
Nearly fifty percent of La Rabida families (those who have used inpatient and/or outpatient services) come from 10 zip codes – what we are identifying as our primary service area. This area is indicated in blue in the map below. La Rabida Children's Hospital is indicated by the red marker.





An additional 25% of patients come from 18 more zip codes (our secondary service area), reaching extensively into Chicago's south suburbs. These zip codes are indicated in yellow above.

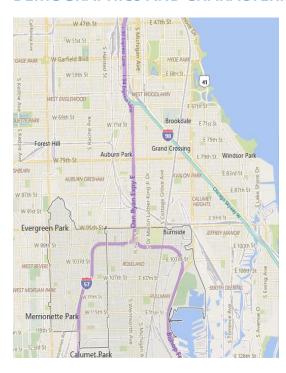
The final 26% spans a broad region encompassing Illinois and Indiana. The total tertiary region is comprised of 280 additional zip codes, and demonstrates our role as a regional specialty hospital. Note the zip codes shown in green below.



Total Service Area

For purposes of this study we will concentrate on the demographics of our primary service area, the 10 zip codes that are home to 48% of our patient families.

# **DEMOGRAPHICS AND CHARACTERISTICS OF OUR PRIMARY SERVICE AREA**



The graphic on the left depicts our primary service area from street level. For the purpose of this report we have assigned each community area to the zip code where it predominates (see map). In some zip codes this correlation is precise; in others it is approximate. In addition, where zip codes contain areas of greatly differing characteristics, the effect of those outliers is muted by aggregating the data in this way.

#### **Impact of Poverty**

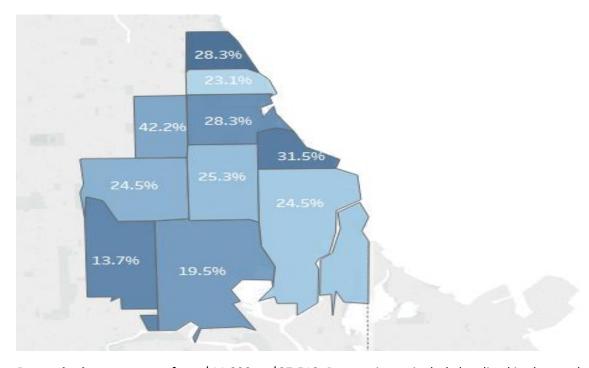
As noted in Measuring Chicago's Health, poverty is shown to be significantly correlated to measures of poor mental and physical health, including inhibition of physical activity because of poor health. In addition, poverty is related to fewer people with health insurance coverage, fewer families with established personal physicians, fewer dental visits and some cancer screenings, such as for colorectal cancer. Poverty is also strongly associated with reduced consumption of fruits and vegetables and lower levels of aerobic and strength-building physical activity. Although poverty did not appear to impact the use of neighborhood outdoor spaces in this first study, it is associated with a perception of less safety in those spaces. Finally, it is strongly associated with current tobacco use, as well as with specific biological markers associated with chronic disease: high blood pressure, obesity. Prevalence of chronic disease is also higher in poorer families: coronary heart disease, asthma, depression, serious psychological distress.

Chicago's health department has compiled a "hardship index", comprising six indicators of hardship:

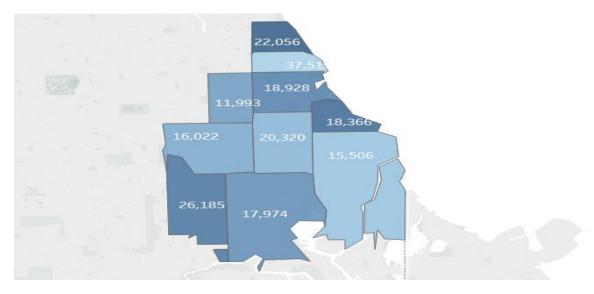
- the percent of people living below the federal poverty level
- per capita income
- the percent of people over the age of 16 who are unemployed
- the percent of people over 25 years of age who lack a high school diploma
- a measure of dependency, that is, percent of people over 65 or under 18

a measure of crowded housing, or occupied units with more than one person per room

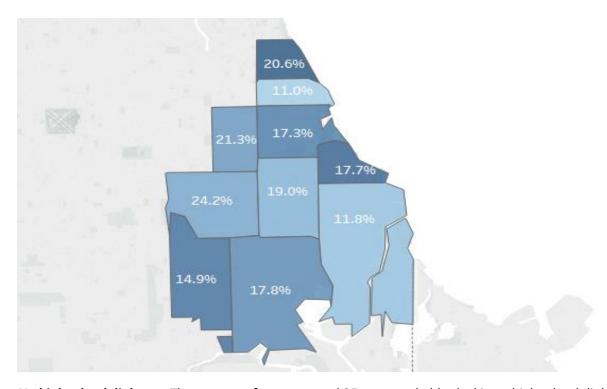
**Living below the federal poverty level**: In our primary service area, percentage of residents living below the federal poverty level ranges from 42.2% to 13.7%. By contrast the state average for Illinois is about 14%<sup>III</sup>.



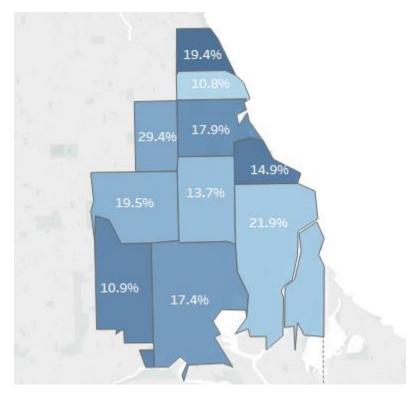
**Per capita income** ranges from \$11,993 to \$37,519. Poverty is particularly localized in the northwest corner of our service area; though pockets of deep poverty occur elsewhere in the region, such as in Burnside, and the entire region is lower than average. By contrast, per capita income in the state is about \$54,203.



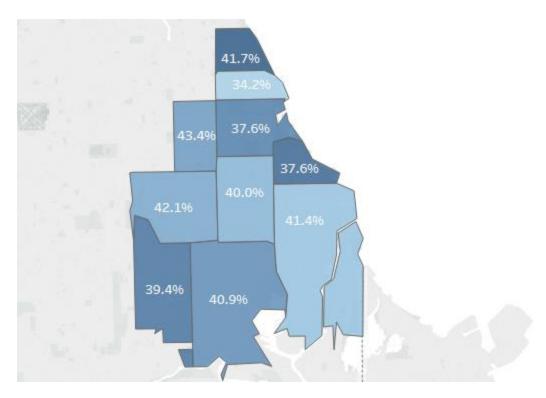
**Unemployment**: High rates of unemployment also occur throughout the region, ranging from a high of 24.2% in Auburn Gresham to a low of 11% in Kenwood/Hyde Park.



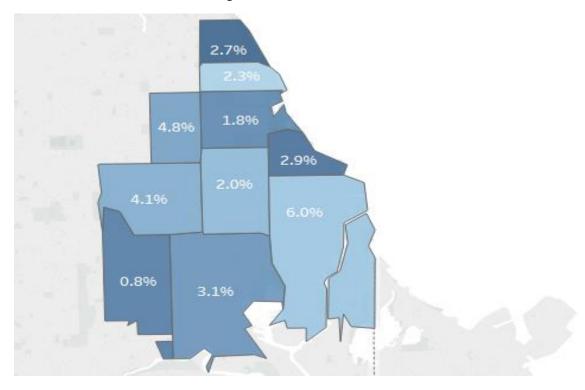
**No high school diploma**: The percent of persons aged 25 years and older lacking a high school diploma ranges from 10.8% in Kenwood/Hyde Park to 29.4% in Englewood.



**Dependency**: Englewood has a notably high dependency rate (43.4%) and Kenwood/Hyde Park stands out as a particularly low outlier (34.2%).



**Crowded Housing:** This is a proxy for the stress of living in crowded conditions; it measures the percent of occupied house in which there are more than one person per room. Our primary service area ranges from 6% in East Side to 0.8% in Morgan Park.



# **Impact of Population Decline**

Each of these 10 zip codes have experienced significant population decline, although four are estimated to have made slight gains since 2010. Measuring from the 2000 census to the estimated population in 2016, the region overall has lost 16% of its population:

		Population			
60615	Kenwood/Hyde Park	<b>2000</b> 45,096	<b>2010</b> 40,603	<b>Est. 2016</b> 40,834	16 YR Decline -9%
60617	South Deering/East Side	96,288	84,155	81,149	-16%
60643	Morgan Park	52,568	49,952	51,231	-3%
60637	Woodlawn	57,090	49,503	49,863	-13%
60649	South Shore	54,823	46,650	45,866	-16%
60628	Roseland	87,827	72,202	69,053	-21%
60619	Chatham	74,963	63,825	63,723	-15%
60653	Grand Boulevard/Oakland	34,502	29,908	31,490	-9%
60621	Englewood	47,514	35,912	31,833	-33%
60620	Auburn Gresham	85,771	72,216	70,293	-18%
	TOTAL	636,442	544,926	535,335	-16%
	*Four zip codes experienced a slight increase in population from 2010 to 2016 Source: city-data.com/zips				

An interesting and unexpected feature is that those who remain have lived in their homes longer than average<sup>iv</sup>. This counters the experience of churning in these communities observed by service providers, but suggests that those who remain have less ability to move<sup>v</sup>. The general exodus, particularly of the African American population from the Chicago metro area (35,000 since 2010), is reported to be fueled by a desire for economic opportunity and safety. vi

This hollowing out of communities leaves empty buildings behind and tears at the social infrastructure, which is a key determinant of community resilience<sup>vii</sup> and informal support for families.

# **Impact of Racial and Age Disparities**

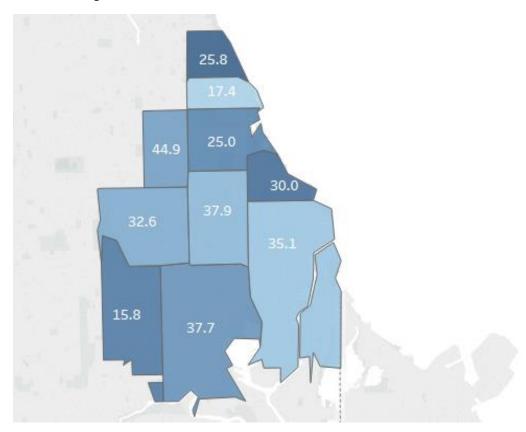
The residents of seven of the ten zip codes in our primary service area are African American (94 - 98%). South Deering/Calumet Heights (60617) has a sizeable Latino population (36%), settled largely in the East Side community. Woodlawn is predominantly African American (78%), but also has small White

13%), Asian (4%) and Latino (2%) populations. The Healthy Chicago survey identified self-reported health status to vary significantly by ethnicity, with nearly 29% of Latinos reporting fair or poor health, compared to 20% for African Americans and nearly 12% for Whites.

# **Perceptions and Experience of Safety**

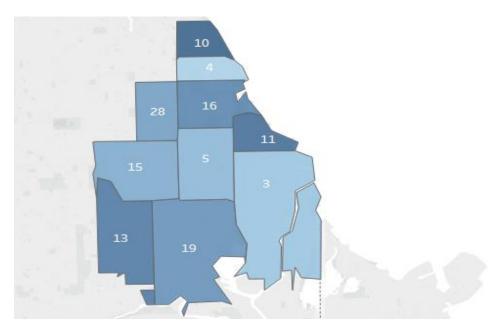
According to the Healthy Chicago Survey, 82% of adults reported that they felt somewhat or very safe in their neighborhood parks, although only 49% of those surveyed reported using those parks. Perceptions of safety correlated with poverty, with 74% of those at or below the poverty level reporting that they felt safe, compared to 90% of those at 400% or above the poverty level. Perceptions of safety also varied significantly by race, with 92% of non-Latino Whites feeling safe, but only 71% of African Americans reporting the same. Seventy-eight percent of Latinos reported feeling safe.

Actual experience of violence is highly localized, with some of our communities experiencing high rates of violence. Measures of homicide, for example, range from 15.8 per 100,000 in Morgan Park to 44.9 per 100,000 in Englewood.

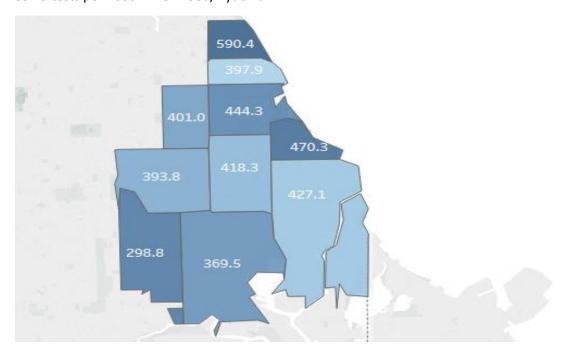


# **Other Environmental Stressors**

The housing stock in our primary service area is older than average<sup>viii</sup>, perhaps contributing to the increased exposure to lead, with lead poisoning findings ranging from 3 cases per 1000 in South Deering/East Side to 28 cases per 1000 in Englewood. For comparison, the city rate is roughly 9 cases per 1000.



Collectively, less than half of all children in are primary service area are screened for high blood lead levels; ranging from as high as 590.4 tests per 1000 children in Grand Boulevard/Oakland to as low as 397.9 tests per 1000 in Kenwood/Hyde Park.



# **Mental Health Indicators**

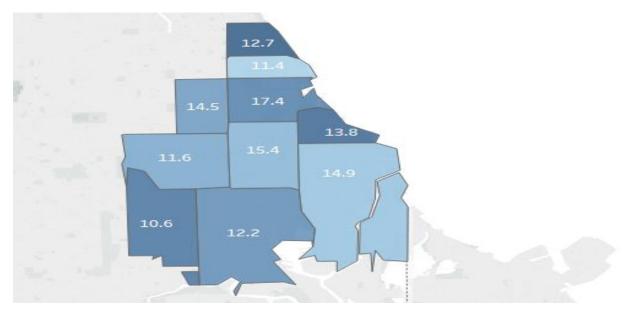
According to the Chicago Health Survey, severe psychological distress is not correlated with age, gender or ethnicity, but is highly correlated with poverty, with 10 percent of those living at or below the federal poverty level reporting distress compared to less than 1 percent of those living at 400% of the federal poverty level or above. Similarly, 22% of the poorest among us have ever been diagnosed with depression, compared to 12% of those at 400% of the federal poverty level or above. These findings are

is particularly significant for the population we serve, as families in such distress have less capacity to care for their medically complex children.

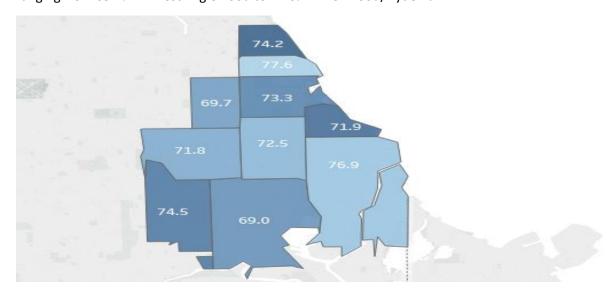
# **Child-Related Health Indicators**

Indicators for a number of chronic diseases correlate with the factors noted above. The adult measures reflect an increased prevalence of diseases, including cancer, stroke, diabetes, and asthma. Our families may be juggling their own poor health while for caring for their medically complex children. As La Rabida serves a population of children, however, we'll focus particularly on those measures here.

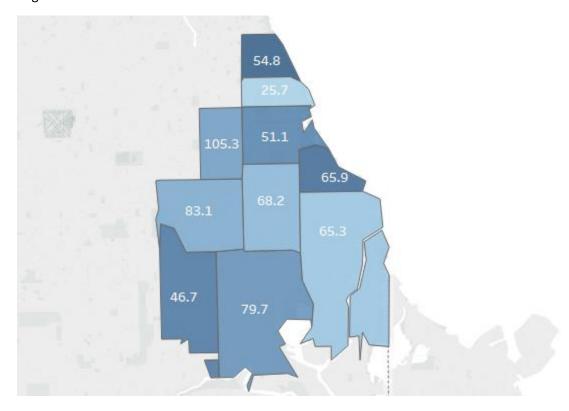
**Low Birth Weight** is associated with increased risk for poor health. In our primary service area low birth rate ranges from 10.6% in Morgan Park to 17.4% in Woodlawn.



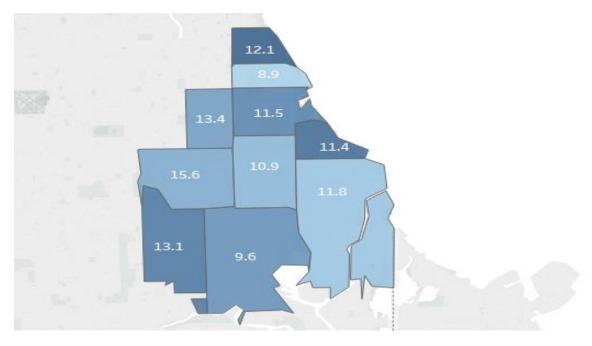
On the other hand, *receiving prenatal care* in the first trimester is a hedge against low birth weight and other pregnancy-related conditions. About three quarters of our mothers receive first trimester care, ranging from 69.7% in West Englewood to 77.6% in Kenwood/Hyde Park.



**Teen pregnancy** is also associated with poorer health outcomes. The frequency of teen births in our primary service area ranges broadly from 25.7 per 1000 in Kenwood/Hyde Park to 105.3 per 1000 in Englewood.



*Infant Mortality* is a stark outcome of multiple stressors. In our service area the rate of infant mortality ranges from 8.9 births per 1000 in Kenwood/Hyde Park to 15.6 in Auburn Gresham.



### **PRIMARY SERVICE AREA ASSETS**

#### **Health Care**

The health care entities in (or abutting) our primary service areas are as follows:

• Acute-Care Hospitals/Emergency Rooms:

Comer (University of Chicago), Advocate Trinity, St. Bernard, Jackson Park, Roseland

• Federally Qualified Health Centers & Other Safety Net Providers

Friend Family Health Center, Mile Square Health Center, ACCESS Community Health Network sites, Chicago Family Health Center, Near North Health Services Corp sites, Beloved Community Family Wellness Center

• Long term care facilities for children:

Children's Habilitation, Alden Village

Mental Health Services/Facilities:

Ada S. McKinley, Metropolitan Family Services

Dental Services:

University of Illinois at Chicago, St. Bernard Hospital, U of I South Shore Clinic

HeadStart

Multiple locations within service area

• Early Intervention:

Child and Family Connections, # 8 and #10

Home Healthcare and Hospice:

Addus, Advantage, American, Independence Plus, Maxim, PSA, Horizon Hospice, Vitas Hospice

Respite Care:

NIA Comprehensive Center, Abraham Lincoln Center, Chicago Association for Retarded Citizens, Community Support Services

Other Community-Based Resources:

WIC, Ounce of Prevention, Division of Specialized Care for Children, First Transit, Developmental Disabilities Family Clinics

### **Expansion of Medicaid Managed Care Organizations**

New since our last report is the expansion of Medicaid managed care, which have been granted a significantly increased opportunity to include a flexible array of barrier-reducing services and are being

held to an actively monitored requirement to provide risk screening and care coordination to high and moderate risk enrollees. Serving our region with affiliated or contracted care coordination services are: Meridian, Molina Healthcare, BCBS of Illinois, Next Level Health, CountyCare, and Illinicare Health. (La Rabida Care Coordination is providing services specifically designed to support medically complex children for enrollees of CountyCare.)

### **Community-Based Assets**

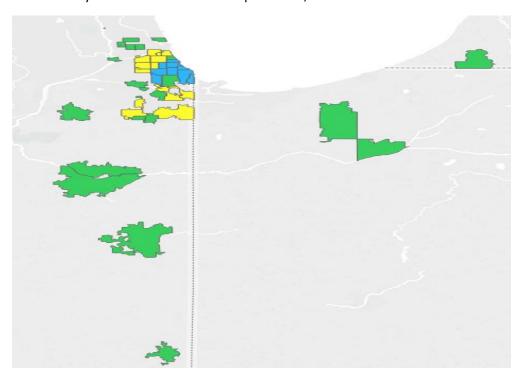
Other community assets are less well documented, although there are several efforts, such as Purple Binder, to document assets in a way that encourages them to be incorporated into service plans. In addition, we at La Rabida have developed a compendium of services we draw on to help individual families assemble the resources that they need. Every zip code has schools, parks, grocery stores and public transportation, although there are limitations in each of these areas, and these assets are not always equally distributed across neighborhoods. The region has two community colleges anchoring it, and a major anchor in the University of Chicago, both in the weight of its own enterprise, its variety of projects and its efforts to collaborate with the community via its Office of Community Engagement. Finally there are community organizing agencies, such as The Woodlawn Organization and Helping Hands in Englewood, that bring together coalitions of churches, block clubs, schools, agencies and public officials to collaborate on projects to create opportunity and reduce violence. A prime example of this collaboration is the entry of Whole Foods into Englewood, and the concomitant efforts to promoting local hiring, include for sale products developed by local small businesses and the encouragement of additional nearby investment. A second example is a relatively new business, Growing Home, Inc., which employs local residents to grow and distribute organic vegetables to local markets now but expecting soon to sell to larger institutions.

Finally there are the families we serve, who despite significant adversity nonetheless demonstrate strength and resilience in order to take care of their children.

### **SURVEY OF LA RABIDA CLINIC PATIENTS**

We surveyed La Rabida Clinic patients to elicit their perceptions of community features and the impact of those features on their perceived access to health and health care.

Three hundred surveys were distributed over a several week period, both in English and Spanish, to adult family members presenting in the clinic with their child for pre-scheduled appointments. The distribution yielded a convenience sample of 115, or a return of 38%.



55% of respondents live in our primary service area, 25% in our secondary service area, 20% in our tertiary service area.

### Survey questions

The survey was designed to be easily and quickly completed and asked about:

- Perceived access to health services.
- Desired enhancements to health and health services
- Respondent's child's chronic conditions
- Primary sources of health information

#### Perceived access to care

Most (97%) of respondents said their children were able to visit a physician if needed, perhaps a reflection of the fact that they were already at their physician's office when filling out their survey. This perception of access to care reinforces the hospitals efforts to ensure availability for that patient. Those reporting difficulty taking their child to a physician when needed (3%) were invited to check multiple

barriers (or offer their own). Transportation and lack of appointment availability were noted as the top two barriers.

#### Enhancements desired to improve health and health care

Respondents were asked to identify three things needed to improve the health of their families and neighbors from among the following: healthier food, job opportunities, mental health services, dental services, vision services, transportation, health education, safe places to walk or play, injury prevention and safety. They also were offered "other" with the opportunity to fill in the blank. Figure 1 below depicts the 220 community health needs responses from the 115 respondents.

100% 90% 80% 64% 70% 60% 50% 37% 33% 40% 24% 30% 17% 20% 7% 6% 3% 10% 0% Healthy food Safe places to Vision Health Other Mental Dental Injury walk/play Opportunities Services Health Prevention and Safety Services

Figure 1:

The top three concerns from our patient population included: access to healthy food (64%), safe places to walk and play (37%), and job opportunities (33%).

Also identified, but with less frequency, were the need for mental health services (24%), dental services (17%), vision health (7%), injury prevention and safety (6%), and other (3%).

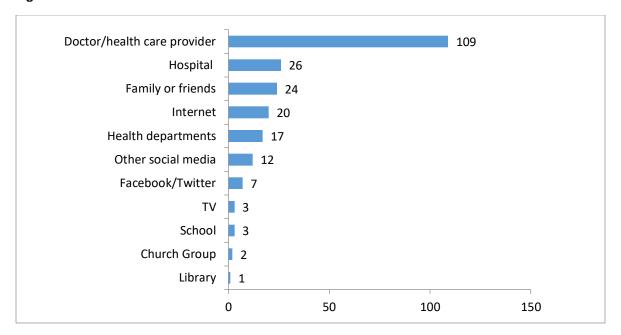
### Respondents' children's chronic conditions

Respondents were asked to name the top three health conditions their children were facing. The Other category (diabetes, asthma and cerebral palsy) (52%) was the leading condition named, followed by Allergies (43%) and then Sickle Cell (16%). Multiple other conditions were mentioned in smaller numbers.

#### **Health Education**

Respondents were asked where they get most of their health information with options to check as many sources as applied, including: doctor/health care provider, hospital, internet, family/friends, newspaper or magazine, school, health department, TV, library, workplace, Facebook/Twitter, other social media, other. The 115 respondents identified 224 sources of information which are displayed graphically in Figure 2 below

Figure 2:



Most respondents (97%) named their physician, to be expected for respondents with children with complex medical challenges seen at a clinic which invests heavily in education. About 23% also relied on their hospital or cited the health department for information, followed by family or friends at 21% and the internet at 17%. The remaining options were chosen by 10% or fewer respondents. The perceived access to care reinforces La Rabida's mission to provide accessible care options for our patients.

### Discussion of survey results

Our respondents cited access to healthier foods as being of primary importance. Looking back at the Healthy Chicago survey results, the poorest respondents also ate the least amount of fruits and vegetables. Unsurprisingly, in a 2006 study of food deserts and their impact in the Chicago region, 18 of the 22 community areas roughly corresponding to our primary service area are highlighted as either partial or complete food deserts.

Having safe places to walk and play was the second most cited concern in our patient survey. Although parks are fairly well distributed in many (though not all) of our communities, the Healthy Chicago survey reports that perception of their safety varies with age, ethnicity, and with poverty levels.

The importance of job opportunities to our survey respondents parallels the reports emerging from the larger community; indeed, this is a major reason cited in the Tribune's discussion for the outmigration of African Americans from Chicago. As noted above, unemployment ranges from 24% to 11% in our primary service area, compared to a long term state average of 7%. Survey respondents living outside our primary service area also highlighted the same issue as their top concern, suggesting that job insecurity is not merely a local phenomenon.

Our survey indicates a much higher concern for safety than is captured in the Healthy Chicago survey. This concern has been cited as a major reason that residents have left the neighborhoods in our primary service area. V

The desire for better access to dental services, mental health services and transportation mirrors La Rabida's experience that these services are difficult to obtain in our primary service area region.

Finally, asthma and allergies were a primary health conditions listed by our survey respondents. There conditions are significantly impacted by environmental air quality, which is poorer along highways and industrial areas. Both of these are prominent parts of the urban infrastructure both in our primary and secondary service areas.

Diabetes was another widely cited chronic condition among our survey respondents. Access to affordable health foods and neighborhood safety are imperative to managing diabetes through diet and exercise. As both of factors were mentioned as major community infrastructure concerns, community development will be instrumental to managing the health outcomes of our patient population.

## IMPLEMENTATION PLAN

A committee of La Rabida senior leadership reviewed the outcomes of the community assessment and the clinic survey noted in the discussion above. We also reviewed the prior implementation plan, and ascertained that there were no written comments received in response to that plan. We reviewed the plan of the major medical center that is closest to us, as well as some other community initiatives underway in which we have the option to participate.

Furthermore, we evaluated the unique role La Rabida plays as a small specialty hospital in the constellation of providers in our community, and discussed the best ways to build on those assets to the benefit of the community.

Overall we wish to bring enhanced services and/or access to services in the areas of general behavioral health, caregiver well-being, trauma-informed services and three pediatric medical conditions: asthma, sickle cell and diabetes.

Expand Access to  outpatient care	Establish walk in clinic for patients with non-acute conditions and increase same-day appointment availability				
Owner:	Coordinate primary care services for patients with Friend and Family Health Center and Chicago Family Health Center who frequently utilize the La Rabida Acute Care Center				
ucy Mayhugh	Expand Outpatient psychiatry services				
_	Implement and staff a financial counseling program to route patients through insurance plans, applications, and payment assistance				
ncrease focus on well-	Insert caregiver well-being checks into standard visit templates.				
peing and self-care	Insert inquiry into informal supports available to family (neighbors, church) into standard visit templates.				
Owners:	Develop information to safe alternatives to playing outside for families who live in self-identified dangerous neighborhoods.  Launch Safe Locations Program for Early Intervention providers to identify safe treatment location options				
Or. David Soglin					
ucy Mayhugh	Implement contract with LYFT to provide additional transportation options to access La Rabida Children's Hospital				
Expand access to	Train primary care providers to treat ADHD, depression, and anxiety, including prescribing protocols				
pehavioral health services	Expand child psychiatry to include secondary support of PCP provision of primary behavioral health services as well				
Owners:	as continuing treatment of more complex cases Introducing Sickle Cell Integrated Pain Program. Offering treatments to manage and improve pain.				
Dr. David Soglin	Plan to expand services to include group therapy sessions				
Gene Liebler	Partner with University of Chicago on pediatric mobile unit medical clinic to offer trauma consults to vulnerable populations				
_	Launch a trauma-informed care seminar to train community providers				
_	Partnership for Resilience: Collaborate with PfR to address childhood trauma, access to primary care and family engagement in the southern suburbs of Cook County, Illinois				
Collaborate with medical center partner on community asthma interventions  Owner:  Or. David Soglin	Collaborating with the University of Chicago Medical Center by being a part of the South Side Pediatric Asthma Center to improve asthma in the surrounding community. D. Soglin, MD is on asthma outreach advisory committee and L. Giles, MD is clinical lead. Overall project is led by senior UCMC administrator.				
expand access to infant	Development of a new program, Baby Steps, on La Rabida's inpatient unit to increase access for babies directly transferring from a neonatal intensive care unit who require more care before going home. Staffing increases were determined necessary				
development services Owner:	to accommodate the needs of these patients, including respiratory therapists and infant development specialists. For these young patients, we are focusing on improving social-emotional, developmental and cognitive skills while providing high-level medical and therapeutic care as well as providing families with therapeutic interactions with their children.				
Or. David Soglin					
n. Daviu Jugiili	medical and therapeutic care as well as providing families with therapeutic interactions with their children.				
mprove Access to Healthy	Update patient intake form with questions relating to knowledge or and access to healthy food options in their neighborhoods				
	Expand in-house list of outisde local resources for food banks, depositories, pantries and farmers markets and ensure patients are aware of local resources by partnering with local food access organizations  Develop a healthy food education plan to connect patients to local nutrition education activities and community events				
Owners:					

# **COMMUNITY BENEFIT REPORT: REFERENCES**

<sup>&</sup>lt;sup>1</sup> Measuring Chicago's Health: Findings from the 2014 Healthy Chicago Survey

ii Chicago Department of Public Health Data Portal

iii State measures are from the United States Census QuickFacts Illinois

iv www.city-data.com/zips

<sup>&</sup>lt;sup>v</sup> Eltagouri, Marwa "Chicago's black exodus expanding" Chicago Tribune, June 25,2016

vi Ihid

vii See Robert Putnam, <u>Bowling Alone</u>, 1980 and Robert Sampson, <u>Great American City: Chicago and the Enduring Neighborhood Effect</u>, 2012

viii www.city-data/zips

ix YCharts.com